DOMESTIC INSTITUTIONS AND THE SUPPLY AND DEMAND OF REMITTANCES

A Thesis

by

BRIAN N. HICKS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

December 2009

Major Subject: Political Science

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Approved by:

Chair of Committee,	Guy D. Whitten
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ABSTRACT

Domestic Institutions and the Supply and Demand of Remittances. (December 2009)

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Chair of Advisory Committee: Dr. Guy D. Whitten

Many countries are dependent upon capital flows for their balance of payments accounts. Sources of expenditures include foreign direct investment (FDI), portfolio investment (PI) and remittances. While the determinants of FDI and PI have been extensively analyzed, the analyses of remittance flows from host to home countries are largely lacking and wide-ranging. Factors predominantly not considered are domestic institutions which support or encourage international remittance exchange. Nations routinely desire to control international immigration and capital movement. Consequently they adopt domestic policies which create and enforce institutions that manage both capital and labor mobility across borders. Additionally, researchers commonly neglect to consider the impact of both the supply and demand factors simultaneously, or in other words, the domestic condition (home and host) which both push and pull migrants to migrate and remit. Further, given the non-dyadic nature of the data, there arises a need to 'regionalize' the data. To test the effects of variations in immigration institutional attributes, I employ a pooled data set of approximately 104 nations from 1990 to 2004. Controlling for existing explanations and regional influences,

I find that domestic institutions have a significant impact on the ability of an individual to migrate to a host country and to eventually remit back to their country of origin.

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1. INTRODUCTION

Foreign capital is a crucial asset to countries, allowing them to maintain positive balance of payment accounts. Capital flows, such as foreign direct investment (FDI) and portfolio investment (PI), are routinely analyzed by researchers[1]. However, another prominent source of capital has often taken a back seat. Workers' remittances are "current transfers by migrants who are employed or intend to remain employed for more than a year in another economy [host] in which they are considered residents" (World Bank, 2006). Although they still only constitute a small percentage of overall foreign funds, they have been growing steadily and substantially over the past few decades (Wucker, 2004). In 1975, migrant workers dispersed remittances from the U.S. valued at approximately $2.98 billion, while in 2003, the totals came close to $90 billion (Aggarwal et al., 2006, 1). By 2006, the total had reached $142 billion (World Bank, 2006).

The growth in totals exclusively from the U.S. is astounding, which makes it even more remarkable that such little research has been devoted to the causes and impediments of these flows. Only recently have remittances been recognized as a prominent source of capital. Yet, existing research has primarily focused on case-studies

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This thesis follows the style of *Comparative Political Studies.*

[1] PI is minimally defined as passive holdings of securities such as foreign stocks, bonds, or other financial assets, none of which entails active management or control of the securities' issuer by the investor. When such control exists, it is known as foreign direct investment (World Bank, 2006). The distinction from remittances is these are invested into a company whereas remittances largely go to households.

(Funkhouser, 2005; Rivera, 2005), evaluated solely effects of remittances (Aggarwal et al., 2006; Wucker, 2004; Appleyard, 1989; Kapur and Singer, 2006; Kurland, 2006), or only considered economic factors as relating to remittances (Rivera, 2005; Buch et al., 2002; Buch and Kuckulenz, 2004).

The lack of dedicated and conclusive research in the area of remittances provides an opportunity to not only extend existing theory but to offer novel conjecture as to the broad causes and promotions of remittance flows. Beyond the customarily applied economic and social causes of remittances is the emphasis on the importance of migration. Logically it would be impossible to send remittances without actually having migrated to a foreign nation. Therefore, it is imperative to consider influences of migration, specifically national or international policies. Despite the importance of migration to remittance flows, an individual must still have the ability to earn an income (capital), and subsequently the desire and ability to return the earnings to their family in the home country.

This contemplation of factors that affect labor and capital mobility between nations implies a need to evaluate dynamics which inhibit or promote these mobilities, specifically domestic institutions. States desire to promote or discourage labor and/or capital mobility. They will often construct specific institutions to control mobility. Nations have been known to be protectionists with regards to the exchange of labor and capital across their borders. Inflow of unwarranted labor can lead to issues of unemployment, while excessive outflow of capital is often viewed as a loss of income. Therefore, countries enact barriers in order to limit capital and labor mobility.

However, as seen with the unprecedented growth of bilateral investment treaties (BITs) and trade agreements in the last half of the 20th century, states are more willing to open their borders (Haftel and Thompson, 2006; USITA, 2008). Countries enact domestic institutions which endorse labor inflow to alleviate manpower shortages. Similarly, they will routinely pass domestic legislation aimed at encouraging international capital exchange to foster international investment. With specific regard to remittances, states encourage (or reduce restrictive institutions) this type of outflow in order to drive it out from underground and subsequently tax its international movement.

The lack of consideration for host state domestic institutions which bind or promote international capital and labor mobility is troubling but not the only issue with extant remittance literature. Much of the existing research that attempted to assess remittance flows more generally often disregarded the complications in the data relating to the unknown specific source and/or destination of remittances. The greatest sources of data on remittances (the World Bank's *World Development Indicators*) only offer data in aggregate, non-dyadic format. Because considerations of economic, social and political supply (those which 'push' individuals into seeking foreign employment and/or present them with ample earnings to send back home) and demand (those that 'pull' an individual toward a superior opportunity for employment and/or entice them to send any available wages back home) influences must be considered, it is impossible to determine the exact destination or supply of remittances based on this abundantly available data source.

The inability to establish the destination of remittance outflows and supply of remittance inflows means that researchers cannot accurately incorporate host and home influences simultaneously. This is problematic because as noted, both supply and demand factors related to both home and host countries affect remittance flows. Therefore, when considering these factors, the average economic, political, and social environment of all the relevant and surrounding nations of the host country must be incorporated simultaneously[2]. This method allows for a more generalized incorporation of the supply and demand factors. The method itself is not perfect but provides an improved process of introducing all the relevant factors which impact remittance flows.

This paper seeks to advance extant remittance theory by considering the influence of variations in domestic capital and labor institutions. At the same time, I intend to broaden current research by evaluating the causes of remittances beyond standard economic variables, applying a macro-level analysis, and assessing the impact of regional or contextual influences. The remainder of the paper is organized as follows. The first section presents some descriptive statistics on flows of remittances and offers a review of the existing theory as to the causes of remittances. The second section discusses potential domestic institutions which are designed promote labor and capital mobility. The third addresses the supply and demand nature of both labor and capital flows while emphasizing the importance of regional contextual factors. The fourth

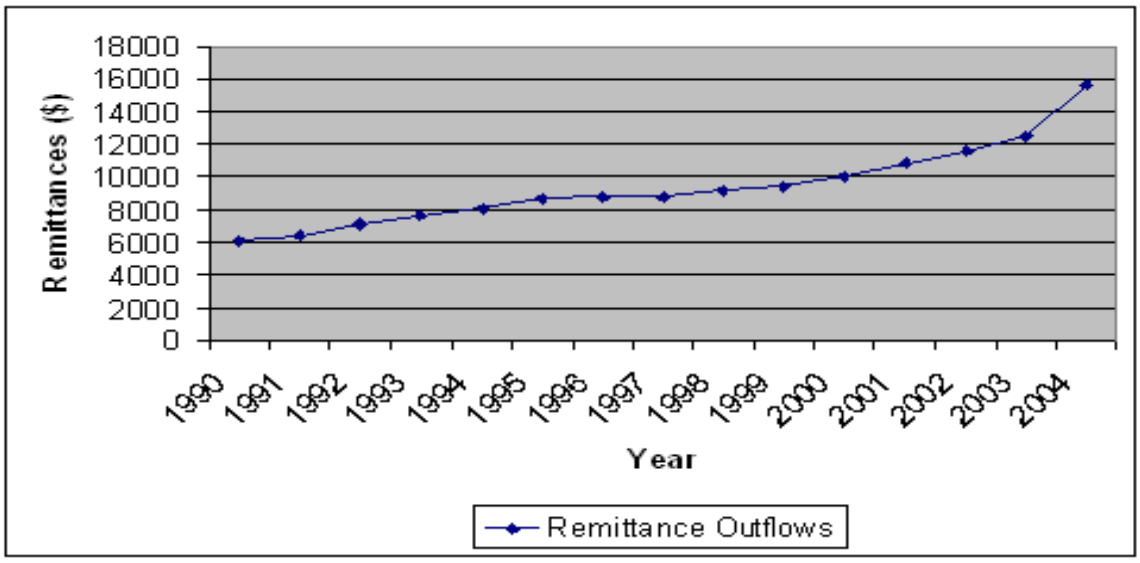
[2] The initial consideration of pertinent host countries uses an aggregate means of analyzing the theorized causes of remittance outflows. Other operationalizations of coding the host region are considered and included as robustness checks.

section details the design of the project while the fifth describes the method of analysis. The next presents and evaluates the results. The final section concludes the findings.

2. REMITTANCES

Remittances represent the second largest form of capital for emerging market economies (Aggarwal et al., 2006). They also tend to be steady, making them an advantageous form of financial inflows (Wucker, 2004; Aggarwal et al., 2006). Developing economies reliance on remittances allows them to buffer themselves from the often unpredictable and volatile international capital (FDI and PI) markets. Further, remittances are used to support not just individuals but also entire families, and often benefit local communities through the "multiplier effect as money circulates among businesses" (Wucker, 2004, 37). Remittances are growing at a double-digit annual rate and totaled more than $223 billion in developing countries (Buch et al., 2002). The steady rise of global paid remittances (outflows) can be seen in Figure 1.

Figure 1
Global Real Remittance Outflows (1990-2004)



Even though the importance of remittance flows into developing economies is apparent, developed nations have often taken steps to dissuade the flow of this capital. Developed nations prefer or are more tolerant toward the external flight of capital in the forms of FDI and PI. These capital movements require investment which commonly results in a return, which is more often than not redistributed within the originating nation[3] (Archer, Biglaiser, and DeRouen, 2007). On the other hand, remittances rarely result in any returns. They are generally invested within the destination nation[4] but are often not sent back to the originating nation (Rivera, 2005; Kapur and Singer, 2006).

Unlike FDI or PI, remittances embody a completely different type of financial flow. They are sent directly into the pockets of individuals, routinely bypassing governments and multinational corporations. Remittances also tend to be much more reliable and constant over time. They are less subjective to the whims of volatile international markets (Rivera, 2005). In addition, they are usually sent for familial or benevolent reasons rather than investment and return.

This general lack of reciprocal capital movement (in the form of investment and return flows back into the originating nation) provides host nations with incentives to restrict capital movements related to remittances. States often have restrictive barriers to remittance outflows, though they may be geared more broadly toward other types of international capital exchange. Further, with regards to remittances, these barriers are not

[3] In this scenario the originating nation is the one that harbors the individuals or company who made the original investment.
[4] In this scenario the destination nation is the one in which the remittances are remitted into.

exclusive to actual capital exchange. States are also generally resistant to free international labor movements, which is also an inherent barrier to remittance flows.

However, situations arise whereby states need or desire to open their borders to both labor and capital mobility. They may initiate and implement policies designed to reduce preexisting barriers. Consequently, the reduction of barriers or explicit promotion of labor and capital exchange (including explicitly or implicitly remittance flows) undoubtedly increases the outflow of remittances from developed nations into developing markets[5]. Developing markets can undertake efforts to increase the inflow of remittances (Spence, 2009). But, many of these efforts are moot if the ability of migrant labor to move into a host state and/or subsequently remit from the host state is limited by existing mobility barriers with the host state. Therefore, it is imperative to first identify the causes of labor migration into host states, causes of migrant remittances back to home states, and the ability (via institutions) of host states to rebuff or promote migrants' capacity to accomplish either.

Because states have the ability to directly and indirectly influence remittance outflows, their causes and effects are potentially difficult to characterize and more varied and unpredictable than the data depicts (Biglaiser and DeRouen, n.d.). This possible inherent volatility of the determinants and effects of remittances has led to largely inconsistent analyses. As noted previously, existing research has generally been case studies, usually only concentrated on economic or social determinants, and primarily focused on the developing world. The conclusion reached in these analyses has varied

[5] Remittances do not move exclusively from developed to developing nations, but this is the general trend.

considerably. Further, they have been analyzed as both a stimulus and a retardant of development (Foster and Rosenzweig, 2001; Kapur and Singer, 2006; Kapur, 2005), as well as having both positive and negative influences on equitable income distributions (Funkhouser, 1995; Stark et al., 1986). Similarly, the research assessing the predictors of remittance flows have been largely inconclusive.

Despite these inconsistencies, some consensus has prevailed. A crucial predictor of remittances has been the migration of individuals. Developed by Stark and Bloom (1985), the New Labor Economics of Migration (NELM) "focuses on explaining remitters' behavior by viewing the household as the relevant unit for the analysis" (Buch et al., 2002, 6). Briefly described, NELM emphasizes the link between migrants and their house of origin, whereby home market failures create an incentive to send family members abroad to seek out needed capital and income insurance (Stark and Bloom, 1985). From a life cycle perspective, "remittances are initially negative as the family bears the costs of migration, remittances increase once a salary is achieved, and remittances eventually fall if the migrant settles and becomes an income insurer, rather than supporter" (Buch et al., 2002). Implicit in this logic is that the incentives to send money may be different from the incentives to receive money, and the decision to migrate (in order to ultimately remit to support a household in a country of origin) is driven by both demand (the need to acquire income support and insurance) and supply (the availability and access of a suitable foreign location for employment and the ability to disperse remittances). What then affects the decision to migrate and seek out employment for remittances? What influences the desire to remit once a migrant has

found employment in a foreign country? And, can these effects be mitigated or controlled by ancillary institutional factors?

3. DOMESTIC INSTITUTIONS

Many existing studies evaluating the determinants and impediments of capital flows focus on institutional factors (Daude and Stein, 2001; Hallward-Driemeier, 2003; Li and Resnick, 2003; Archer, Biglaiser, and DeRouen, 2007). They highlight the importance of both financial and political risks to investors when deciding when and where to invest. Although remitters do not invest in any tangible assets like FDI or PI investors, they still face similar financial and political risk related to domestic institutions. Migrant workers who remit face institutional barriers to both labor and capital mobility, both of which endanger their ability and capacity to supply their family in the home nation with sufficient financial support.

There are two general institutional factors which affect remittances: the ability to move into a (host) nation and the ability to send capital (from income) out of the nation and back to an individual's nation of origin (home). Logically, a migrant cannot remit if they are not employed in a foreign country. But, foreign employment does not necessarily guarantee that the migrant can remit either because there may exist barriers that limit the flow of capital between nations. If these exist, then a migrant may be hesitant to remit, may be unable to remit, or possibly be forced to remit in a covert manner[6]. Further, these institutions which guide labor and capital mobility are not all designed the same or created with the same intent. By evaluating the variations in labor

[6] Presumably any undisclosed remittances are not measured and are therefore unable to be tested accurately.

and capital mobility conditionalities, I can more thoroughly elucidate the influence of institutions on remittances.

3.1 LABOR MOBILITY

Situations arise in which states may attempt to enact barriers to entry which restrict access to foreign labor. Opening up borders runs the risk of inducing a flood of unwanted immigrants. Even when safeguards and restrictions on the number or types of immigrants are established, countries are rarely able to fully control immigrant populations. This allows illegal immigrants to enter, go unchecked, and subsequently avoid some of the benefits of foreign employment (i.e. taxes) while also producing the problem of abuses of foreign labor (i.e. salaries below minimum wage) (Huggins and Hicks, 2009). To alleviate many of these negative effects, countries often resort to creating and enforcing numerous stringent institutions[7]. Although not perfect, extensive and restrictive labor mobility institutions minimize the ability of foreign labor to enter a host state and subsequently remit.

However, since the decision to migrate and gain access to income sources and insurance can be caused by the demand side (i.e. a need by the host state for more employees), it is reasonable to consider situations in which a host state would desire to accent access to favorable foreign employment. There are countless reasons in which a state might desire foreign workers, such as a lack of qualified employees or a need for cheap labor. Under these circumstances, a nation would be willing to open up its borders

[7] Commonly, countries simply retain existing policies and institutions which are more repressive toward labor mobility.

to allow more migrant laborers and/or greater ‘skilled' labor. If more skilled individuals are allowed to enter, there are more potential workers capable of remitting.

Countries that wish to allow more individuals to enter tend to lessen the restrictions on the number of migrants allowed into a state. States also “incorporate migrants politically into their host countries, through extension of dual citizenship,” (Spence, 2009, 6) or implement other migrant-friendly policies such as increasing the number of allotted migrants per year (Itzigsohn, 2000; Smith, 2003). These policies encourage and enable a greater amount of migrants into a country. Although they may not all be seeking employment, the larger number implies a greater overall number of individuals who will seek and find employment, whereby they may eventually remit (Appleyard, 1989).

States can also initiate institutions directed specifically at foreign workers. In these instances, migrants are welcomed into a country explicitly to obtain permanent or temporary work, thereby increasing the number of employed migrants (Kapur and Singer, 2006). Similarly, some legislation is geared toward certain sectors of the economy. This opens up more areas of employment for foreign labor, often higher quality and paying occupations. If more skilled laborers enter, they are presumably taking higher paying jobs and consequently able to remit greater amounts of income per migrant (Margheritis, 2007; Smith, 2003; Ostergaard-Nielson, 2003). Under these circumstances, states may recognize foreign professional certification or open up access to a broader range of occupations. For example, Nepal allows non-tourist visas to individuals who work with the social and economic development works, newspapers and

news agencies, and international airlines organization, whereas other occupations are more often than not denied non-tourist visas (The Immigration Rules - 2051, Nepal Ministry of Home, Department of Immigration, 1994).

3.2 CAPITAL MOBILITY

Even though the fostering of migration is an influence on remittances, the two concepts "are not fully correlated, and although migrant streams have matured, remittances have not always concurrently increased" (Buch et al., 2002, 4). This is because host states seek to encourage immigration, but often enact barriers to the outflow of capital, including remittances. Taxes, tolls, and duties routinely accompany any exchange of capital across border, no matter the medium. Additionally, even when remittances are dispersed via an intermediary, "such as a bank or transfer companies like Western Union, they are commonly accompanied by charge fees, commissions or exchange margins that average between 4-10\% of most remittance payments" (Spence, 2009, 6; Orozco, 2004). These rates become relatively excessive in large part due to the domestic institutions which place controls on international capital movements. While home country governments attempt to reduce these costs by pressuring money-senders to reduce their fees[8], host nations extend institutions in order to retain as much of the capital within their state as possible. Presumably, host states would have little incentive lessen institutional restrictions on remittance outflows.

[8] This is executed by crafting bank accounts or financial services tailored toward migrants. These simplify and hasten the process of remitting, thereby resulting in a more inexpensive process (Levitt and de la Dehesa, 2002).

However, host states do have primary and supplementary reasons for loosening the barriers to remittance flows. Host governments are usually fully aware that aggressive and excessive restrictions on remittances will not necessarily prevent their outflow. Instead, migrant labor will simply resort to more surreptitious but precarious means[9]. Any remittance delivery method that is taken out of the hands of official intermediaries results in the loss of revenues from taxes and fees. Therefore, states have an incentive to institutionalize a reasonable medium with regards to the extent of fees or commissions. For example, Sierra Leone removed a ban on remittances and instead initiated an official act allowing for any "expatriate personnel with work permits to be permitted to make remittances abroad through their commercial banks, subject to such withholding tax obligations as are contained in the Income Tax Act 2000, if applicable" (The Investment Promotion Act-1, Sierra Leone, 2004). Although the act still exercises a tax, the government now collects an income on remittance outflows, whereas before it had passed up this revenue generation opportunity. Policies of this sort, although relatively rare, are directed specifically at remittances, and thus have a sizeable and significant impact on the capability of migrant workers to remit.

From a secondary perspective, host states often seek to encourage free movement of capital in order to foster trade and economic prosperity. Enacting policies which reduce barriers to capital flows, whether they are directed at FDI, PI, or remittances, undoubtedly result in increases in financial flows across borders. Although states

[9] Examples would include direct mail, the black market, or physical delivery in person (Aggarawal et al., 2006). In each of these cases a remitter runs a higher risk of none of the money being delivered at all, but increases their chances of avoiding royalty payments on international exchanges.

commonly establish institutions guiding the free exchange of capital in order to foster investments (FDI or PI), it has the ancillary effect of allowing remitters to send capital with fewer restrictions such as taxes, tolls, or tariffs. Even though this logic is similar to states institutionalizing initiatives related to reducing fees and commissions on remittances, it differs because policies of this type are broadly related to free movement of capital and rarely directed specifically on remittances or intermediaries such as transfer companies. Rather, knowledgeable remitters can take advantage of wide-ranging capital exchange institutions and policy directed indistinctly at remittance flows.

Correspondingly, every state in the world abides by some sort of exchange rate regime. Whether it is a freely floating or tightly managed, each state institutionalizes its exchange rate. Like capital and investment agreements, this is usually not directly intended to affect remittance flows. However, the inherent volatility or stability of varying types of exchange rate regimes is a deterrent or enticement for remitters (Buch et al., 2002; Orozco, 2004; Rivera, 2005; Spence, 2009; Buch and Kuckulenz, 2004). Although migrant laborers are usually concerned with the specific exchange rate, they also judge the potential volatility of the exchange rate. Independently floating rates are intrinsically capricious because sectoral interests, interest groups, and voters can pressure politicians and monetary officials into altering the exchange rate (Bernhard and Leblang, 1999; Keefer and Stasavage, 2002). This implies that remitters are less confident in the value of their remittances as they are sent home. On the other hand, more stable rates, such as pegged, induce confidence in investors and remitters alike. This confidence stems from the assumption that the value of a remitters income will not

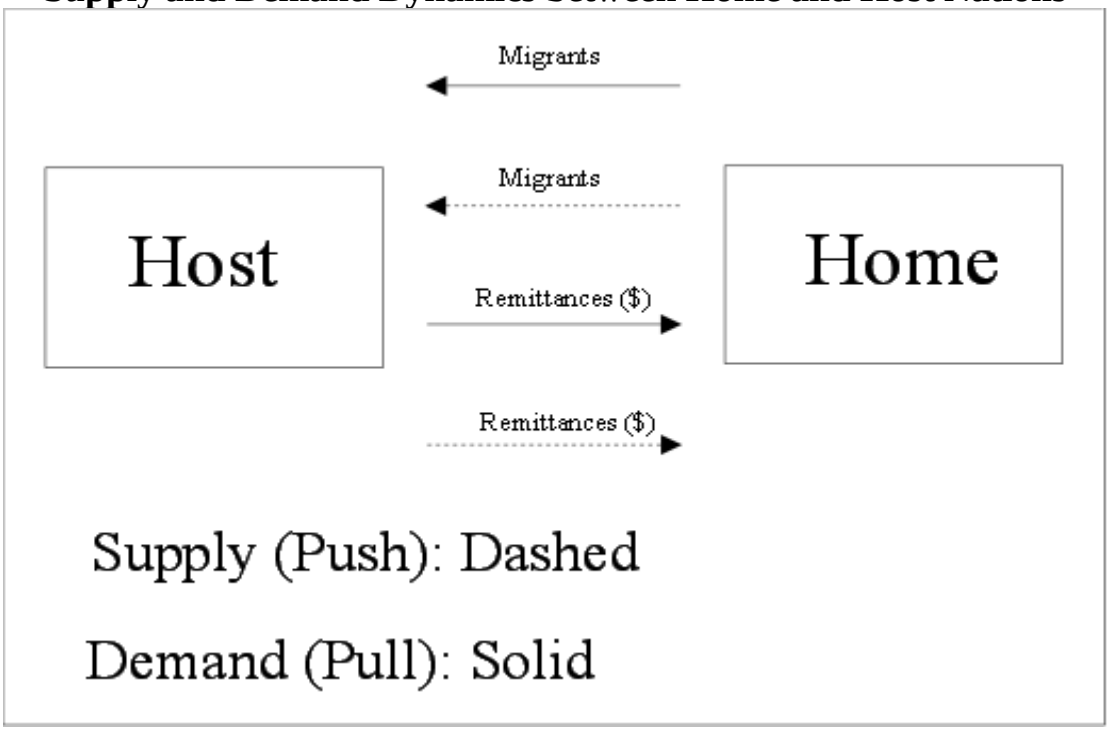
be grossly and potentially negatively affected as it is exchanged across countries over time. This means migrant workers will be more inclined to remit legally (i.e. through official intermediaries) when exchange rate regimes are more stable.

Host states have motives to both restrict and promote remittance flows via capital mobility. Further, these desires are not always in congruence with incentives to limit or foster labor mobility, and are not always done with the explicit intent of directly affecting remittances. Nonetheless, capital mobility institutions are established by host governments and they have significant impacts on the ability and capacity of migrant workers to remit.

4. SUPPLY AND DEMAND

When an individual seeks employment in a foreign land while supporting a family which remained in the home state, the initial need for remittances has developed (Stark et al., 1986; Buch et al., 2002). As seen in Figure 2, there are two general ‘push' and ‘pull' mechanisms which affect the circumstances in which an individual seeks foreign employment and the amount they are willing to remit.

Figure 2
Supply and Demand Dynamics between Home and Host Nations



4.1 SUPPLY

Instances in which a home state becomes downtrodden (socially, politically, or economically) force individuals to seek a better living in another country (Foster and Rosenzweig, 2001; Kapur and Singer, 2006). Often the individuals will be unable or unwilling to bring their family members to the new state. This is a supply (push) occurrence because the individual is basically being forced out of his/her country in order to search for employment. A situation of an abundance supply of labor in the region has developed because a home state is producing numerous individuals who are seeking optimal employment.

Similarly, when migrant workers have attained employment for whatever reason in a foreign nation, they may become flush with more income under favorable circumstances (i.e. improvement in the economy, better employment, lower taxes due to change in the government) (Woodward, 2007). Given this situation, the migrant, who is still supporting a family in the host nation, will have more disposable income in which they can send back home. In this instance, the individual's growth in earnings has led to a larger supply of capital in which to remit.

4.2 DEMAND

Alternatively, there are also instances in which nations demand (pull) foreign labor and capital. Regions where individuals can feasibly migrate are often socially, economically, and politically divergent. This is not to imply that any single country is substandard, but rather that there is often a country within a region that overwhelmingly

appeals to individuals as a destination of choice. Even when an individual maintains a comfortable living in his/her home nation, they may still be drawn to the nation epitomized as superior. In these instances, if individuals decide to migrate to the host nation due to its assumed superiority (whether it be economic, social, or political) they are pulled in by the lure of a ‘better life' (Kapur, 2005; Buch and Kuckulenz, 2004). Likewise, this country may demand foreign labor during times in which its labor supply is less than desired (either in numbers or quality).

Correspondingly, when migrant workers have already become employed in a host state, situations in their home nation may force them to make sacrifices which result in remitting more earnings. For instance, if a home state is suddenly plunged into a recession or political chaos, the security of any job in the home state is in jeopardy. Therefore, migrants abroad will feel pressure to send even more money home to ensure the security of their family (Spence, 2009). This instance can be viewed as a situation of the home family demanding more money from their kin abroad in order to guarantee financial stability.

In many instances the same factors simultaneously affect both the supply and demand mechanisms (Biglaiser and DeRouen, n.d.). This is why it is important to not only evaluate the social, political, and economic conditions of a host state, but also to assess these same conditions within home states and the region as a whole. The primary factors are internal conflict, economic growth, income, population, unemployment, trade openness, inflation, polity, regime stability, and corruption.

As seen, there are numerous contextual variables (both regional and domestic) which relate to the need of immigrants to seek employment in foreign countries, the ability of a host nation to offer optimal employment opportunities, and the necessitation of families to receive remittances. The relative openness of a state to both labor and capital flows is irrelevant if there are minimal desires of foreign individuals to seek employment in a host nation and/or if a host nation has a minimal need for (foreign) employment. However, given that there are supply and demand remittance mechanisms at work, domestic institutions have a significant impact on the ability of individuals to migrate and subsequently remit.

5. RESEARCH DESIGN

Though it is important and relevant to understand what factors lead states to design and establish institutions related to labor and capital mobility, the goal of this article is to identify the effects of these institutions on remittance flows. Developing and developed nations introduce institutions for countless reasons. As noted, states may intentionally be attempting to manage remittance flows, or they may design institutions which inadvertently affect remittances. Across regions, states, and time the outcomes of each of these institutions will vary. This paper sets out to evaluate the intended and unintended consequences of capital and labor mobility institutions while considering contextual regional influences and controlling for domestic factors, both of which restrict or promote labor and capital flows.

5.1 SAMPLE

The data-set consists of time-series cross-sectional (TSCS or pooled) data for approximately 104 nations over 15 years (1990-2004). Data limitations, both across space and time, prevent the expansion of the study. However, the sample still garners upwards of 1170 observations (with the smallest amount of observations for a model being roughly 901 observations)[10]. Further, this reduced sample size allows for relatively consistent sample sizes across each of the models. The source and a more detailed

[10] Due to variation in the statistical approaches of each model, some of the results have a different number of nations included in the sample. However, the primary analysis possesses 104 nations with the variations in number of countries occurring within the alternative models.

operationalization for each of the variables comprising the data can be located in appendix.

Additionally, the sample and analysis has been restricted to the outflow of remittances. This is because efforts to control inflows from the domestic perspective of the home state are rendered relatively meaningless if host states severely restrict immigration inflow and remittance outflow[11]. Because remittances are generated initially in the host state, it is logical to determine and analyze the designed factors (institutions) which inhibit or endorse remittance production within it source before moving to designed influences within the home state.

5.2 VARIABLES

5.2.1 Regionalization

The next few sections describe the dependent and independent variables, while also presenting theories and explicitly or implicitly offering hypotheses. Of relevance is that many of the independent contextual variables are also individually averaged across a region and subsequently differenced with the host state value for the variable[12]. The desire to average and difference single measures of variables is derived from the non-dyadic nature of the dependent variable and the supply & demand influence of contextual factors on remittances. Obviously domestic factors (i.e. institutions, economic, social, and political conditions) play an important role in determining the

[11] Understandably, even stringent host practices and institutions designed to limit remittances are not capable of fully eliminating remittance outflows. But they will pose as a serious impediment to remittance exchange.
[12] The domestic (host state) value minus regional average.

outflow of remittances from a host state. But, as theorized above, push and pull factors that drive remittance outflows also originate from home states (receiving nations). Many scholars quantitatively studying large-N samples of remittance flows routinely neglect this consideration (Rivera, 2005; Spence, 2009; Buch et al., 2002; Buch and Kuckulenz, 2004), and sometimes even assume to know, and subsequently model, explicitly where remittances are being paid (i.e. the specific nation of destination) (Spence, 2009).

However, because the dependent variable is non-dyadic, it is impossible to determine exactly what states remittances originate (when operationalized as receiving) or their nation of destination (when operationalized as paid). Therefore, to account for the supply and demand dynamics of home states on the outflow (payment) of remittances, the need to average regional factors exist. Further, it avoids the theoretical problem of assuming, and consequently measuring, what specific states receive payments remittances. Any incorporation of singular home state dynamics intended to express home state push and pull mechanisms is theoretically and statistically erroneous because we do not know explicitly what percentage of remittance outflows that the home state is actually being paid. On the other hand, regional averages capture the supply and demand logic on a generalized scale in congruence with the comprehensive and indiscriminate origin and destination of measured remittance flows.

I first theorize that a majority of remittances are generated by migrant labor from relevant, contiguous, and International Labor Organization (ILO) nations. This comprehensive measure is intended to capture a wide-ranging group of potentially pertinent nations. As noted, it is comprised of three different regional groupings. The

first consortium is garnered from relevant regional nations, which consist of grouping developed and by obtained from Gleditsch and Ward (2001)[13]. This assembly is intended to capture home countries within the same geographic region as the host state no matter how distant they may be.

The second combination is comprised of contiguous nations. Using EUGene (Bennett and Stam, 2000), I coded contiguous nations as bordering the host state or separated by no more than 150 miles of water. This grouping is expected to capture only home nations in which it is feasible to migrate to and remit from a host state on relatively limited budget or short amount of time. Including solely contiguous states also eliminates the inclusion of nations which might be part of the relevant region but can easily be determined to not have a significant impact or international relationship with the host state. Additionally, this allows for the inclusion of nations which may be contiguous to the host state but are not considered part of the relevant region.

Lastly, I include a measure of ILO nations. The ILO offers a cursory dataset of the primary national sources of migrants and migrant labor for numerous host states. In virtually all the cases, geographically contingent and approximate states were the largest suppliers of labor. However, in some cases (i.e. the U.S.), dominant sources were not exclusive to regional or contingent neighbors. The ILO collection captures the countries which are specifically measured to have provided the most immigrants to the host state (and presumably are the primary sources of remittance outflows), and therefore

[13] The nations comprising the relevant regional model consist of: 1. Eastern Europe and post Soviet Union; 2. Latin America; 3. North Africa \& the Middle East; 4. Sub-Saharan Africa; 5. Western Europe and North America; 6. East Asia; 7. South-East Asia; 8. South Asia; 9. The Pacific; and 10. The Caribbean

eliminates the possible inclusion of home states which are insignificant with regards to providing immigrants. However, the downside of the grouping is it commonly only provides data on a short lists of immigrant source nations. It likely misses out on some pertinent home nations.

Due to the advantages and shortcomings of these four regional combinations, they are each individually analyzed and presented. But, first they must go through one more crucial process. Although regional averages are an important factor influencing remittance outflows. I am more generally concerned with differences between home and host state contextual factors. As theorized above, supply and demand mechanisms are often related not simply to the absolute level of home factors, but rather the difference between home and host factors. Migrants can be drawn to host states with more successful social, political, and economic factors even when their home state is sufficient. This is because the host state is viewed as significantly more prosperous due to its higher contextual factors. Alternatively, growing differences in contextual factors between a home and host state implies either a greater need for employed migrant laborers to remit back home due to deteriorating home state conditions or a greater capacity to remit more money due to a growth in host state conditions (which presumably increase the earning power of a migrant worker).

Further, differentiating depicts an initial desire to migrate or remit. Differences between home and host states that lead to superior conditions in the home state are

representative of a lack of desire by an individual to aspire to migrate and/or remit[14]. Given these circumstances, I would not expect an individual to seek foreign employment or send earnings to a family in a home state. Modeling solely the regional averages of home states does not represent the divergence of conditions between home and host. For example, it is difficult to determine if an individual would seek foreign employment if I only knew of the home state conditions. I could not assess an individual's motivation to migrate if I didn't know if the destination (host state) had superior economic, social, or political environment. Therefore, given the previously described need to average regional contextual factors, there also exist a necessity to difference the regional averages and the domestic values.

5.2.2 Dependent

The dependent variable is the annual net outflow (payment) of real remittances for a country from 1990-2004. Net outflow is defined as the paid remittances and compensation of employees. Remittances and compensation is comprised of current transfers by migrant workers and wages and salaries earned by nonresident workers (World Bank, 2006). Data are taken from the World Bank's *World Development Indicators* (2006). The primary model possesses 104 countries across all levels of economic development and regions of the world. Understandably, available data tends to consist of more developed nations. However, the focus on more recent years allows for the inclusion of greater variation in the countries and relatively balanced models.

[14] If an individual is currently working abroad, optimal conditions in a home imply that the migrant is now and insurer rather than provider (Buch et al., 2002). The migrant will only begin to remit again if the conditions in the home state deteriorate or if the conditions in the host state improve significantly.

Table 1
Variable Summary Statistics

Variable	Observations	Mean	St. Dev.	Min	Max
Remittance Outflow	1794	6.782	34.734	-212.000	360.000
Freedom of Movement	3033	0.576	1.764	0.000	26.000
Migrant Workers	3033	1.467	5.143	0.000	32.000
PT Labor Migration	3033	1.020	4.012	0.000	28.000
Ex. Rate Type	2654	7.223	4.214	1.000	13.000
Remittance	3033	0.203	0.995	0.000	11.000
FM Capital	2145	10.127	5.688	0.000	23.000
Labor	3033	2.334	1.111	0.000	3.000
Capital	3017	1.973	0.731	0.000	3.000
Immigration	1503	10.704	2.367	3.401	16.870
Internal Conflict	2548	0.321	0.796	0.000	3.000
Population	2830	8.419	2.187	2.221	14.061
Corruption	1637	40.231	27.171	0.000	100.000
Unemployment	1579	9.218	5.887	0.300	43.500
GDP Growth	2803	144.979	532.987	-6054.560	5980.120
Income	2803	8377.115	8583.287	170.550	50759.560
Trade Openness	1963	83.814	52.922	2.004	462.926
Inflation	2603	73.338	695.124	-24.100	26800.000
Polity	2323	2.499	6.851	-10.000	10.000
Regime Stability	2366	22.046	29.642	0.000	195.000
Internal Conflict[a]	2927	0.028	0.705	-2.889	1.333
Corruption[a]	2181	8.986	25.549	-54.722	79.524
Unemployment[a]	1488	0.746	5.485	-24.033	30.900
Economic Growth[a]	2803	-0.232	488.184	-5792.366	6071.505
Income[a]	2830	-108.553	5367.195	-24653.240	11522.020
Trade Openness[a]	2747	26.032	60.519	-302.493	160.433
Inflation[a]	2711	-3.898	656.289	-26274.820	1247.617
Polity[a]	2927	2.665	7.262	-14.825	30.121
Regime Stability[a]	2927	4.253	23.327	-92.944	63.056

[a] signifies the variable is regionally averaged and then differenced from the domestic value (regionalization consist of the aggregate coding structure)

5.2.3 Independent

Extant literature has contended numerous sources of influence on the flows of remittances. This includes macro- and microeconomic influences, as well as political and societal causes. However, it has largely neglected to consider and analyze the influence of domestic institutions. Below I review many of the more prominent, but also under-evaluated, causes of remittance outflows. I present theoretical reasoning and hypotheses

for the primary independent variables (institutional mechanisms), while also providing cursory expectations for the direction of the expected effects of the contextual variables. Table 1 provides a brief statistical account of the characteristics of the variables, including the dependent variable.

Institutions. For this study, institutional based variables are inherently a domestic product. Host states design and implement them in order to manipulate and manage either labor or capital mobility across their borders. They are not directly related to the push and pull mechanisms discussed earlier. Rather, they are the inhibiters of the supply and demand logic. They are organized and used to either promote or diminish the outflow of remittances via labor and capital mobility. Therefore, unlike many of the contextual variables (domestic conditions and regional environment) to be discussed later, they are only modeled as they relate to the host state. They are not averaged or differenced in congruence with regional influences.

Domestic institutions are regularly a state's primary mechanism by which to monitor and control the outflow of remittances. Given that remittances are affected by both the ability of migrants to enter into a country and the capability of them to subsequently send money back out of a state, a host nation can impinge on remittance flows by either addressing labor or capital mobility.

Labor Mobility. Prominent policies instruments of institutions designed to manage labor mobility are those related to the freedom of movement of all persons across borders, the control of migrant workers occupations, and the extent by which migrant laborers can gain and retain actual employment.

The ability to control overall immigrant mobility greatly affects remittance flows. Even though not all migrants intend to attain employment, larger numbers of admitted migrants implies larger numbers of potential workers[15]. Consequently, the greater the number of potential workers from a pool of migrants, the greater the amount of remittances. States often initially have restrictive policies toward migrants. However, they may be coerced domestically or internationally to introduce policies that allow for the loosening of restrictions on migrants. Therefore:

*H_1: As the number of institutional policies intended to reduce the limits on immigration (**Freedom of Movement**) increases, the amount of remittance outflows from a host state will increase.*

Although national governments introduce legislation controlling the broad movement of people, they are also concerned with the actual employment of the individuals when they enter a nation. Host governments are critical of allowing excessive amounts of individuals to enter a nation and gain employment. Migrant laborers occupy domestic jobs usually viewed as substandard or blue collar (i.e. construction, farming, transportation). This can result in backlash by native citizens who feel their jobs are being taken by foreigners. However, especially in developed nations,

[15] These workers may be legally employed when there are few restrictions against it but they may also be illegally employed. In either case, they will still often remit through intermediaries (Buch and Kuckulenz, 2004).

there are labor shortages due to a decrease in population growth[16] (Hass, 2008). Under this circumstance, governments are inclined to introduce institutional legislation allowing for temporary or permanent work permits. The broad number of lower-level occupations needed to be filled, along with the temporary nature of many of the occupations (i.e. seasonal farming and construction projects which no longer require labor once the project is completed) implies that the government introduces relatively vague permits allowing individuals to move between sectors. Therefore, I hypothesize that:

*H_2: As the number of institutional policies directed at reducing the restrictions on temporary and permanent employment (**PT Labor Migration**) increases, the amount of remittance outflows from a host state will increase.*

Lastly, there are circumstances in which migrants are explicitly banned from certain sectors (i.e. military, government). But, more often states institutionalize policies that allow workers to garner work visas (of varying types) when they work in specific fields (i.e. energy, management, media, medical, education). Though these policies are similar to allowing workers to gain temporary or permanent work visas, it differs considerably because these policies are aimed directly at certain sectors. More common

[16] Though more common in higher income nations, poorer or developing countries often feel the strain of a lack of employable persons. This can be the result of internal strife, conflict, or simply a growth of the economy that outpaces the growth in population (Hass, 2008).

in developing nations[17], governments desire for more experienced and knowledgeable workers to enter a country in order to stabilize the economic infrastructure and facilitate the economic growth. The foreign workers share their expertise and promote desired growth through their more efficient means of development. Thus:

*H_3: As the number of institutional policies aimed at reducing the constraints on specific areas of employment (**Migrant Workers**) increases, the amount of remittance outflows from a host state will increase.*

Capital Mobility. Even when a host state desires labor, it may simultaneously want to restrict the outflow of capital. Nations would rather see capital reinvested into the domestic economy. However, the ability to garner profits from international capital exchange (via taxes, tolls, and commissions), as well as escalating aspiration to globalize, implies that states are willing to open up their economies and allow for the relatively free exchange of capital across borders. The mechanisms intended to loosen the restrictions on international capital mobility have direct and indirect impacts on remittances.

The primary policies devices of institutions designed to manage capital mobility are those related to the explicit legislation addressing remittance flows, the establishment of exchange rate regimes, and agreements allowing for the free movement of capital.

[17] Although it is more common in developing nations, higher income nations also find themselves opening up to specific types of foreign labor. Circumstances arise in which a state becomes globalized to the point that they are required to admit specific types of skilled labor because these individuals already are ingrained in their economy (Hass, 2008).

As with the labor mobility institutions, national governments can introduce policies which are explicitly intended to address the flow of capital between nations in the form of remittances. Initiating policy directed at allowing the outflow of remittances enables governments to tax these capital movements. Complete banishment of remittances flows means the government loses out on this revenue source. Yet, this generally does not stop the flow of remittance, but instead drives remittances underground where they escape the stringent restrictions on their movements[18]. This does not imply that nations are willing to fully and cheaply allow the flow of remittances out of their state. When governments believe that there are significant amounts of remittances crossing their border, they still have an incentive to introduce some sort of institutional policy aimed at collecting profits from the movement of remittances. Therefore, states concerned with remittance flows will usually enact some institutional policy that reduces restrictions on remittance flows but does not entirely abolish all limitations on remittance flows. I hypothesize:

*H_4: As the number of institutional policies intended to diminish the monitoring, controlling, or tolling of remittance flows (**Remittance**) increases, the amount of remittance outflows from a host state will increase.*

Enacting policies geared specifically to monitor remittances is an example of a direct way in which national governments control remittance flows. However, other less

[18] The covert nature of these types of remittance flows implies that they are difficult to measure and therefore complicated to evaluate accurately.

direct mechanisms have equally influential impacts on the outflow of remittances from host states.

Nearly every national government abides by some form of exchange rate regime. They range from free floating to tightly pegged to another economy. Regularly the establishment of the regime is intended to promote monetary and fiscal stability, development, and to open an economy up to investments via FDI and PI. However, remitters are acutely aware of exchange rates since the transfer of salaries across borders is directly affected by the rate (Lianos, 1997; Russell, 1986). Given their concern for the exchange rate, most remitters avoid remitting excessively when exchange rates are floating. This is because floating exchange rates are allowed to vary against that of other currencies and are determined by the market forces, as well as sectoral interests. Although these rates are usually manage to the extent of preventing extreme inflation or deflation, they still change almost constantly. This ambiguous and steady alteration implies that remitters are unaware of exactly the value of their remittances once they leave the host state. Alternatively, migrant labor tends to prefer the stability accompanied by tightly managed (pegged or fixed) rates because they have (nearly) direct convertibility to another currency (presumably of the home state). Therefore:

*H_5: More loosely managed de facto exchange rate regimes (**Ex. Rate Regime**) will lower the amount of remittance outflows from a host state.*

States also indirectly influence remittance flows by enacting policies which encourage the free movement of capital. Frequently, the initiative to open up capital exchange by universally reducing restrictions on capital movement is done with the intent of promoting trade and investment in the form of FDI and PI. Commonly international investment agreements, such as Bilateral Investment Treaties (BITs), establish reciprocal protocols regulating the exchange of capital between two nations (Chowla, 2005).

These policies are often so broad (such that they apply to all forms of capital exchange no matter the area of investment) that migrant labor can take equal advantage of them. Reductions in taxes, commissions, and tolls on broad capital exchange provide informed migrant workers with ability to move remittances more inexpensively. Further, these institutional policies are directed at banks rather than financial intermediaries. The reduction on international exchange costs within banks and large financial conglomerates means migrant laborers are more willing to use them as mediums for remitting. This increase in incentives to invest in banks implies that remitters can earn interest on their earnings before remitting them. Therefore:

*H_6: As policies on the free movement of capital are expanded (by entering into more BITs) (**FM Capital**), it will increase the outflow of remittances from a host state.*

Interaction. As seen above, states may have a vested interest in introducing institutional policies, relating to international labor and capital mobility that are

contradictory to each other. Some national governments wish to increase labor inflows in order to alleviate manpower shortages or introduce skilled labor. However, at the same time, they may desire to restrict the outflow of capital in an effort to force individuals to invest domestically. Alternatively, some states do not lack labor and therefore maintain relatively closed borders. Yet, they are interested in global exchange of capital in order to promote foreign investment and globalize economically.

Given scenarios like these, states are simultaneously establishing institutions which both restrict and promote factors that lead to remittance outflows. Therefore, it is necessary to evaluate the interactive effects (***Labor*Capital***) of both labor and capital mobility institutions.

H_7: Institutional labor barriers will reduce the outflow of remittance if and only if the level of institutional capital barriers is sufficiently high.

H_8: Institutional capital barriers will reduce the outflow of remittance if and only if the level of institutional labor barriers is sufficiently high.

Economic Contextual Variables. Prior literature has been relatively thorough in its evaluation of the large-N economic and macroeconomic influences of remittances (Rivera, 2005; Lianos, 1997; Perez-Lopez and Diaz-Briquets, 1993; Russell, 1986; Huggins and Hicks, 2009; Buch et al., 2002; Buch and Kuckulenz, 2004; Lianos, 1997).

The predominant variables used have been economic growth, income, unemployment, trade openness, and inflation.

Economic growth (***GDP Growth***) is a proxy for the economic strength of an economy. As an economy becomes stronger and more established, its citizens and workers should feel the repercussions in the forms of higher wages. This implies that employed migrant workers can remit larger amounts due to higher earnings. Similarly, gains in the economy act as a pull mechanism by attracting foreign labor to more prosperous regions. These laborers may then potentially remit in the future.

Income, as measured by GDP per Capita, is often cited as one of the primary reasons for remittance flows. It elucidates the desire for foreign workers to migrate to another country. They can seek better-quality jobs which often pay more. As a result, workers have the ability to send even more money back to their home nation. I expect that the models will show that as income increases, the amount of remittances paid will increase.

From a pull perspective, high ***Unemployment*** in a host state is a signal to potential migrants that there is little work to be found. If an individual has already migrated and currently resides in a host state, high unemployment may entail a lack of available jobs. It also may force the migrant to be willing to settle for substandard occupation simply to garner some minimal wage. From this perspective, unemployment, as measured solely in the host state, implies a decrease in remittances.

Higher levels of ***Trade Openness*** imply that a nation has become more globalized, and is successfully developing economically. Domestic companies are

creating abundant employment opportunities in the host country which can be filled by not only domestic labor but also by foreign labor. Foreign workers are attracted to this economically flourishing region, and domestic employees reap the benefits of a successful trade industry. Additionally, increases in overall foreign trade tend to be accompanied by increases in international interactions. These interactions promote a state internationally and attract foreign labor which views the state as productively growing, thereby increasing their desire to migrate to the host state. Therefore, as trade openness increases, I hypothesize that outflows of remittances will increase.

Higher ***Inflation*** is considered to be a detriment. This means that higher levels of inflation in host states are not attractive to foreigners and do not allow migrant labor to remit more. Higher inflation rates imply a loss of purchasing power. This would detract individuals from desiring to travel to a nation where they income they earn would be less valuable. Further, migrants residing in the host nation would be forced to work and earn more in order to be able to afford to make a suitable living. This becomes even more problematic when it is considered that many of the individuals seeking foreign employment initially started with meager amounts of capital. They cannot manage to pay more for goods and services that they could barely afford to begin with. Therefore, I expect that as domestic inflation increases, remittance outflow will decrease.

Variable Differentiation. Each of the variables above, with the exceptions of unemployment and inflation, identify factors which when increased in a host state, not only offer a pull factor that attracts foreign labor, but also a push factor that provides migrant labor with more money to remit. Unemployment and inflation work in the

opposite direction, whereby increases are hypothesized to result in decrease of remittances.

However, as stated, each of these variables is only capturing half the picture. They miss the effect of migrants being pushed from their home state, due to diminishing economic conditions, and subsequently seeking more rewarding economic areas. They also overlook the demand considerations of a home nation, whereby once again weakening economic conditions create a greater incentive by migrant workers to remit more money in order to alleviate the deteriorating home economy. From this logic, I expect that when the regional variables related to GDP growth, income, and trade openness increase (implying that the conditions between the host and home (regional) states are more severe), there will be an increase in remittance outflows. Conversely, when there are increases in unemployment or inflation, migrants will feel less of a need to seek foreign employment and fewer immigrants will be less capable of remitting earnings. They will either be unable to find employment or will have to spend more income on basic goods and services, and not on remittances.

These differentiated measures do not perfectly capture the alterations in the conditions of home states. But, they do represent the divergence in conditions between home and host which would put pressure on a migrant to seek foreign employment and remit more earnings.

Political Contextual Variables. The assessment of political variables on remittance flows has been largely deficient. Few studies have actively attempted to evaluate the influence of these variables (Biglaiser and DeRouen, n.d.; Kapur and

Singer, 2006; Spence, 2009). However, this does not entail that their effects should be discounted. Specifically, I will address the variables polity and regime stability. ***Polity***, operationalized as a 21-point scale (-10 being least democratic and 10 being the most) is expected to have a positive effect on outflows of remittances. This is because as nations become more democratic, their institutions are more transparent and they are less likely to illegally seize any form of capital gains. Individuals in highly democratic nations will not have a need to conceal their income and dispatch it discretely. Similarly, migrant labor desire to migrate to countries where they do not have to fear repressive political regimes which act outside of the will of the people. Further, democracies tend to be more politically open to the rights of all people, including migrants. This allows migrants the possibility of influencing political agendas in beneficial ways.

The ***Regime Stability***, or length of time a regime has lasted in a nation, is expected to increase remittance outflows from host countries. Migrant workers in host nations become familiarized with the government's practices and may have the desire to send their monies to home markets because they are confident that a sudden displacement of the government is unlikely. Further, they have become accustomed to the generally steady legal proceedings associated with a stable regime, and do expect these to change excessively or immediately. Unstable governments imply that individuals would accumulate and save money for fear of needing it in the future. These saving would lessen the impact of abrupt political change and insure against any political, social, or economic repercussions of unexpected political change, but would not be able to be remitted.

Variable Differentiation. Once again, the political variables described above represent both host nation effects on remittance and home (regional) influences. Hypothetically, as a home state becomes more democratic relative to a host state (the difference between the two decreases), there is less of a need to remit or to leave the home state in search of a more promising and politically open nation. If individuals in home states are less fearful that their government will illegally expropriate incomes and private property, they will become less dependent on remittances and will be less willing to leave the decreasingly politically repressive state.

Similarly, as a home state's government becomes more stable (regardless of its level of polity), individuals are more confident in what to expect from the political regime. They are accustomed to the political environment and therefore know how to appropriately adapt. This creates less of a need to burden the costs of searching for foreign employment. Additionally, if a more economically prosperous area is experiencing significant regime alterations, individuals may be fearful to migrate because they are uncertain of the ultimate outcome of the regime change and instead choose to stay in the relatively stable home state. Even when a home state is politically stable, there may also still exist a need for remittance in the home state because the current regime may treat property rights and incomes unfavorably. However, extensive experience with such despotism implies that individuals are more accustomed with these repressive tactics than individuals under similar but less stable regimes. Therefore, individuals under more stable regimes will be less reliant on the extra income associated with remittances.

Social Contextual Variables. These variables are intended to address domestic societal factors beyond politics and economics which might influence the outflow of remittances. Specifically, I will model the effects of internal conflict, corruption, population, and immigration. Internal conflict, corruption, and population are hypothesized to have negative impacts on remittance outflows, while immigration positively affects remittance outflows.

Increases in ***Internal Conflict*** are expected to decrease outflows of remittances from host states because migrants in these areas must conserve their earnings in order to insure against the possibility of costly destruction and violence. Further, internal conflict tends to slow the domestic economy. People become fearful of the violence and remain at home to avoid being caught in the middle. Therefore, it is tougher on individuals to remit because they may be avoiding work and not earning a wage, or may be safeguarding their earnings in order to protect against any potential negative effect of the conflict. Because of the violence and destruction, individuals will similarly avoid migrating to host states experience high levels of internal conflict.

Corruption is expected to be a deterrent to outflows of remittances. Greater levels of corruption in host states imply that migrants would avoid these illicit environments because it is more likely they will be treated fraudulently. They are not assured of earning fair wages (i.e. above minimum wage) or that their incomes will be expropriated illegally. Similarly, migrant workers already residing in corrupt nations are likely dealing with these issues. Thus, they are unable to send significant amounts of their earnings because much of their wages are garnered illicitly or they are paid well

below a fair wage. Alternatively, less corrupt host states attract migrants because individuals are not fearful of being taken advantage, and promote remittance outflows because they are able to garner legitimate wages.

High ***Population*** levels of host states signal to foreign workers that there are extensive amounts of competition for employment. This is problematic because it makes finding and retaining a job more difficult. Therefore, individuals would be less willing to migrate to highly populated areas and contend with the competition for employment. Correspondingly, migrant labor existing in a highly populated can be more easily displaced from their job because there are more people competing for their job. Further, in the event of a layoff, it is more difficult for the migrant to find work. Each of these problems entails a situation whereby it is more difficult for a migrant laborer to remit because it is more likely that they will become unemployed or unable to find a job.

The importance of actual underline{Immigration must be addressed and controlled for even though the host state pull dynamics are not entirely applicable[19], nor are the home state pull or push mechanisms[20]. This variable has been incorporated by other authors (Rivera, 2005) and theoretical implications considered by other researchers (Appleyard, 1989; Wucker, 2004; Kapur and Singer, 2006; Funkhouser, 1995; Buch et al., 2002; Buch and Kuckulenz, 2004). The general sentiment is that as immigration

[19] Increases in immigration levels likely do not attract foreign workers to a host state. However, it is possible that foreign labor may 'follow the herd' to areas in which other migrants are moving (Appleyard, 1989).

[20] Employed foreign labor is not theorized to be influenced by the inflow of migrants into their home state. Greater amounts of migration into the home state do not induce migrant labor to send greater amount of remittances home or to seek employment in a host state. If there is a significant migration into a home state, it is likely because economic conditions are optimal or because the surrounding areas are experiencing significant economic, political, or societal problems.

increases, the outflow of remittances will increase. Understandably, as more immigrants migrate to a foreign land the amount of remittances paid to home nations will increase because there are simply more workers sending money home.

Variable Differentiation. Unlike the previous contextual factors, I have not included each of the variables. Excluded are immigration and population because they are included primarily as control variables. However, internal conflict and corruption are still averaged across the region and differenced.

With regards to regional conflicts, positive increases in the differences between host and home states imply that either the host state has become more conflicting or the home state has become more peaceful. If the home state has become more peaceful, there is less of a need to remit into it and less of a desire to leave it, especially into a conflicting host state. If the host state has increased internal violence, individuals will not be drawn toward it and they will be less able to remit from it (the theoretical dynamics associated with domestic influences). Therefore, in either situation remittances are expected to decrease as the differences between host and home state increase.

If a home state is less corrupt relative to a host state, individuals are unlikely to be pushed from it. They are not pressured to locate to a more advantageous social environment where they can be assured of attaining their rightful earnings, especially if potential host states are drastically more corrupt. Similarly, if the host state is more corrupt than the home state, there is not the pressure to remit large amounts of money because the family at home is not being deprived of fair wages or stripped unjustly of earnings. In addition, it is likely immigrants in the corrupt host state have their earnings

illegally garnished, and thereby cannot remit as much as desired or back home. Thus, I expect that as host states become increasingly corrupt relative to home nations, remittance outflows will decrease.

6. METHOD

To investigate the effects of variations in institutional promotions/barriers on remittance outflows, I employ time series and cross sectional (pooled) data ranging from 1990-2004. Not only does this increase the size of the sample (N) but it allows me to explore the macro-level determinants of variation across both space and time. However, because the data has approximately 15 time periods for each nation, time series properties must be considered. Non-stationarity, autocorrelation, heteroskedasticity, and serial correlation are inherent pitfalls in pooled data, as well as the possibility of varying coefficients (over both intercepts and slopes).

The inclusion of numerous nations over a relatively long period of time implies the possibility of variations in intercepts and slopes across nations and time. Modifying the data and running a Hausman specification test indicated that statistically significant variation existed across intercepts but not the slopes, and that a fixed effect model was superior to a random effects model. Further, a quick glance at Figure 1 depicts the likely existence of non-stationarity. Because the data are unbalanced, an xtfisher test (Maddala and Wu, 1999) is appropriate for testing for the presence of non-stationarity. The test confirmed its existence. To address these issues, it is recommended to use a first difference transformation of the dependent variable and find a suitable instrument to apply to the model (Anderson and Hsiao, 1981). Anderson and Hsiao (1981) recommend introducing y_{t-2} as an instrument on the right-hand side instead of Δy_{t-1}.

Additionally, I tested for the presence of cross unit correlation, panel heteroskedasticity, and autocorrelation across the disturbances. A Breusch-Pagan statistic for cross-sectional independence (Greene, 2000) signified the presence of panel correlation and a modified Wald test depicted the existence of panel heteroskedasticity (Greene, 2000). An xtserial test (Drukker, 2003) showed that autocorrelation was a problem and a likelihood ratio test indicated that correcting for panel specific autocorrelation was more appropriate than correcting for a common autocorrelation structure.

To control for each of these concerns a linear regression with panel-corrected standard errors model (Beck and Katz, 1995) was implemented with the options to account for the previously described statistical issues. In addition, some control variables have been lagged one year to mitigate potential reverse causality problems and to account for the "memory" assumption. This is recommended by Nathaniel Beck (1991) who stresses that lagging independent variables implies that migrant workers express "memory" when evaluating where to remit[21].

[21] Beck (1991) claims that the "no memory" assumption suggests remitters would not consider prior information when assessing where to remit.

7. RESULTS

The results for the determinants of outflows of remittances are found in Table 2. The models (1-5) are presented sequentially with the first four representing a different grouping of regions used in the analysis. The fifth model uses the aggregate regional collection but introduces the contextual variables as rates in the model. The models 2-5 are considered to be robustness checks against the aggregate model, but they offer additional insight into the conjectures and confirmation of the results. As seen, each of the models is significant.

With regards to the contextual variables (domestic conditions and regional differences), the outcomes are largely as expected, though not always significant. Immigration has a positive and significant impact on the outflow of remittances. This is effect is consistent across each of the models, though to varying degrees. Similarly, lower levels of corruption (higher values on the index) have a positive impact of remittance outflows. However, the effects are inconsistently significant across the models, thereby offering less concrete support that corruption is a meaningful influence on remitters' decision to migrate to a host state or the ability to remit more income from the host state. The same corruption results apply to the regional environment (differentiation) except the coefficients are insignificant across all the models. Population effects are in the expected negative direction but do not have a significantly detrimental impact on the ability of the host state to pull in (attract) foreign labor or push

out more remittances. Likewise, domestic conditions of internal conflict are shown to negatively, but insignificantly affect remittance outflow.

Table 2
The Effects of Institutional Promotions, Domestic Conditions, and Regional Differences on Remittance Outflows (1990-2004)

	(1) Aggregate	(2) Relevant	(3) Contiguous	(4) ILO	(5) Rates
History					
Remittance Outflow[a]	-0.284	-0.277	-0.247	-0.266	-0.030
	(0.189)	(0.183)	(0.183)	(0.178)	(0.161)
Institutional Promotion					
Freedom of Movement	10.707*	10.604	12.802	13.246	16.339
	(5.978)	(7.324)	(9.713)	(8.473)	(9.172)
Migrant Workers	4.929**	4.907*	6.863*	6.909*	10.335**
	(2.293)	(2.868)	(4.124)	(4.192)	(5.168)
PT Labor Migration	2.724*	2.685*	4.624*	5.481*	5.981*
	(1.701)	(1.625)	(2.672)	(3.282)	(3.338)
Ex. Rate Type	-0.235*	-0.248	-0.779	-0.820*	-0.823*
	(0.132)	(0.228)	(0.642)	(0.453)	(0.441)
Remittance	12.231**	11.958*	20.369*	19.888**	24.991**
	(5.952)	(6.746)	(12.301)	(9.844)	(12.034)
FM Capital	1.185*	1.155*	2.003*	2.204**	2.610**
	(0.698)	(0.520)	(1.039)	(0.973)	(1.160)
Domestic Conditions					
Immigration[d]	2.690**	3.853**	4.388*	4.011**	5.529*
	(1.255)	(1.943)	(2.629)	(1.993)	(3.051)
Population[d]	-7.478	-9.146	-13.491	-12.812	-78.939
	(7.775)	(10.284)	(11.332)	(14.973)	(153.25)
Internal Conflict[b;d]	-4.272	-3.759	-29.877	-28.507	-14.849
	(37.422)	(37.150)	(35.698)	(34.639)	(88.972)
Corruption[b;d]	1.610*	1.593	1.690	2.106*	5.302
	(0.878)	(1.376)	(1.268)	(1.265)	(4.550)
Unemployment[b;d]	-4.251	-4.175	-2.581	-8.163	-19.095
	(5.620)	(5.627)	(4.987)	(5.601)	(46.023)
GDP Growth[b;d]	0.039**	0.039**	0.038**	0.030*	0.043**
	(0.018)	(0.018)	(0.019)	(0.018)	(0.020)
Income[b;d]	0.008***	0.001*	0.004***	0.002**	0.007**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)
Trade Openness[b;d]	-0.344	-0.346	-0.459	-1.106	-0.418
	(1.089)	(1.084)	(1.176)	(1.010)	(0.898)
Inflation[b;d]	-0.004	-0.005	-0.005	-0.024	-2.576*
	(0.028)	(0.028)	(0.060)	(0.049)	(1.456)
Polity[b;d]	2.279	(0.049)	3.282	2.373	-4.164
	(3.143)	(6.134)	(4.216)	(5.084)	(13.397)
Regime Stability[b]	0.126	0.124	0.122	0.257	0.323
	(0.211)	(0.208)	(0.264)	(0.203)	(0.507)

Table 2
Continued

	(1) Aggregate	(2) Relevant	(3) Contiguous	(4) ILO	(5) Rates
Regional Environment					
Internal Conflict[c;d]	32.613*	33.173	50.301*	77.544*	138.687
	(18.480)	(29.301)	(29.981)	(41.035)	(126.276)
Corruption[b;c;d]	1.629	1.606	1.611	1.993	4.006
	(1.315)	(1.312)	(1.215)	(1.219)	(7.509)
Unemployment[b;c;d]	-8.921**	-6.994	-8.961**	-12.515***	-27.787**
	(3.914)	(4.609)	(3.948)	(4.167)	(13.950)
GDP Growth[b;c;d]	0.531***	0.533***	0.451***	0.500***	3.041*
	(0.198)	(0.198)	(0.172)	(0.167)	(1.622)
Income[b;c;d]	-0.555***	-0.556***	-0.474***	-0.491***	-4.005**
	(0.199)	(0.199)	(0.172)	(0.168)	(1.910)
Trade Openness[b;c;d]	2.560***	2.551***	3.262***	1.695*	4.636
	(0.848)	(0.846)	(0.953)	(0.894)	(3.983)
Inflation[b;c;d]	-0.001**	-0.001	-0.001**	-0.001**	-0.517**
	(0.0006)	(.0007)	(0.0006)	(0.0005)	(0.211)
Polity[b;c;d]	-6.190**	-6.255**	-7.288***	-6.586***	-60.892
	(2.464)	(2.459)	(2.336)	(2.356)	(81.408)
Regime Stability[b;c]	0.499	0.499	0.641	0.530	0.701
	(1.024)	(0.925)	(1.716)	(1.717)	(2.420)
Constant					
Constant	-28.89	-27.373	-9.507	-37.977	-53.373
	(52.151)	(51.761)	(54.959)	(54.961)	(85.016)
Observations	1172	1172	1172	901	1150
Number of code	104	104	104	78	104
R^2	0.692	0.646	0.641	0.587	0.727
Prob > chi^2	0.000	0.000	0.000	0.000	0.000

Standard errors in parentheses
*p < .1, **p < .05, ***p < .01 (two-tail test)
[a] signifies lag of two years
[b] signifies lag of one year
[c] signifies the variable is regionally averaged and then differenced from the domestic value
[d] signifies that the variable has been converted into rates (Model 5 only)

The economic contextual variables performed mostly as anticipated. Unemployment and inflation have significantly negative impacts on the supply and demand dynamics of remittance outflows. However, these effects are only shown to be significant relative to the regional environment (the coefficients are significant across all

models except the second). It would appear that unemployment and inflation concerns of migrants have a meaningful influence when migrants consider the variations between their home state and the host state. They are more willing to migrate when the relative conditions of foreign states are far superior (lower unemployment and inflation) and remit when home conditions are severely lacking.

Alternatively, economic growth, income, and trade openness all positively affect remittance outflow with exceptions of domestic conditions of trade openness and the income disparities of the regional environment. Excluding the noted exceptions, each of these variables also expresses a significant impact. These results indicate some of the strongest, and reasonable, support for the outflow of remittances. Because remittances are related to money and capital, any economic conditions which affect the ability and capacity to make a suitable income would also affect the ability to remit. Logically, any nation with a strong and vibrant economy will not only be relatively attractive to foreign labor but it will also provide said labor with the capability to earn, and consequently remit more income.

Lastly, the political conditions are as expected, though the significance of the results is largely lacking. The polity and regime stability of the domestic conditions, as well as the regime stability comparisons of the regional environment, each positively affect the outflow of remittances. The one contradictory result occurred with the polity concerns within the regional environment. It seems that remitters have little concern about the political conditions of the home and host states. This is not that surprising given the previously discussed emphasis and importance of economic conditions.

Remitters seemingly are willing to forgo political concerns for economic ones. They appear to endure or ignore political repression for economic prosperity and opportunity.

As noted, some of the results were surprising and contradictory. First, the domestic conditions of trade openness negatively influence remittance outflows, though the effect is insignificant across all the models. The implication is that individuals are not attracted to host states with positive trade accounts, and migrant workers do not have the ability or willingness to remit more money. It is possible that high trade accounts entail global competition in the sectors primarily occupied by migrant workers. They are not only competing against domestic laborers but also against labor in other countries (due to outsourcing). Additionally, if a host state does have a high trade balance and is presumably outsourcing much of its jobs or is relying on foreign products, individuals in home states have no need to leave. They can take the outsourced jobs or find employment in one of the sectors that produces goods for the host state.

Second, the relative amounts of internal conflict within the regional environment appear to have a potentially significantly positive impact on the outflow of remittances. Across all the models the effects are positive, but in only three of the models (1, 3, and 5) are the effects significant at over a 90 percent confidence level. These unexpected results may be due to the ability of migrants to remit more money to their families in a conflicting home state. When there is more conflict in the home state than the host state there is obviously a need to remit to families at home. The internal conditions require that they receive more capital during the trying times. However, it is possible that the conflictive nature of home environment has made it difficult to effectively remit

meaningful amounts of income home. Vice versa, when the home state is relatively more peaceful than the host nation, it may not only be easier to remit capital into the home state, but the internal strife within the host state puts pressure on immigrants to remit as much income as possible before they lose their employment or are forced to relocate.

The polity variables for regional differences are significantly and negatively signed implying that when a host state is relatively more democratic than regional home states, there is a decrease in remittances. The relatively higher levels of host state democracy may create a situation in which a migrant is willing and more able to move his/her entire family into the host state. Democracies are often more attractive destinations for individuals to reside due to their political freedoms. They also tend to be more accepting of political refugees[22]. Therefore, migrant have the incentive and capability to move their entire family into a host state. If this occurs, there is no longer a need to remit. In this situation, individuals are still attracted toward democratic host states, but if they are able to bring their entire family, they do not feel the need to remit back to the home state after the fact.

Lastly, and most surprising is that higher discrepancies between the incomes of host and regional homes nations significantly and negatively affect remittance outflow. These results indicate that when individuals within the home region earn less than those in the host state, migrants are less likely to migrate into and remit from the host state. A possible explanation could be similar to that of the political regional environment. When the differences between incomes become so vast, it implies that the host state is

[22] This is not always the case but does tend to be the norm.

extremely wealthy and the home state is poor. Given this situation, migrants working in the host state are earning significantly more than the individuals in their home country. Therefore, they have the more capital to bring their families into to the host state either by legal or illegal means[23]. The point of emphasis is that the higher levels of earning not only provide migrants with superior income by which they are more easily able to afford relocation costs for their families, it also offers them an incentive to save money (rather than remit) in order to bring their families to a place of greater financial opportunity.

In addition, migrants who intend to remit most often move into areas where the potential income earnings are greater. This makes up the vast majority of migrant remitters, so it is unlikely that there are many who travel to areas where the average income is less than the home nation. However, the few migrant who actually move to destinations of lower incomes have probably done so because they have found and become employed at one of the limited number of jobs that pays an income comparable to those in the home state. Even though these individuals are in a nation of weaker relative income to that of the home country, they still make a respectable earning and are thus able to remit a meaningful amount back home. They also likely have little desire to spend significant amounts of money in the host nation or bring their families to a nation which is less financially viable. Therefore, even in the instances where an immigrant migrates to a country with a lower overall income, it is still probable that they remit more income than otherwise.

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[23] No matter the destination, it cost money to relocate individuals. As the remitter accumulates capital, he/she is able to better afford the cost of paying for his/her families relocation costs. These costs may simply be associated with standard moving fees (i.e. plane tickets, legalization fees, residency documentation costs) or may be more illegitimate in the form of bribes.

As for the institutional variables, the results are mostly as anticipated. Labor factors which open up more areas of occupation for migrant workers and broadly allow migrant workers to remain employed for various amounts of time, are each significant. Only labor factors related to decreasing restrictions on immigration was mostly insignificant (only significant in model 1), though signed as anticipated. Likewise, capital institutional factors that tightly control exchange rates, loosen restraints on remittances, and allow for the relatively unrestricted movements of capital, are significant as well (the exceptions being exchange rates for models 2 and 3).

These results offer further evidence that national governments can directly impact the ability and extent of remittance outflows. As discussed earlier, migration is an inherent precursor for remitting. Logically, if individuals have not migrated to a host country, they cannot feasibly remit. Therefore, states enact barriers to prevent such migration or introduce institutions that promote the inflow of individuals. Such promotions are often done with the intent to minimize specific or general labor shortages, but they indirectly affect remittance outflows. The results indicate that with regards to controlling the outflow of remittances, legislation targeted specifically at migrant labor (rather than all migrants in general) has the greatest impact on encouraging remittance outflows. This makes sense given that the legislation is designed and implemented to specifically deal with migrants who earn salaries. These are also the same immigrants most likely to remit.

But, the presence of migrant labor does not guarantee remittances. States can and do enact legislation designed to control and limit international capital movements, and

often specifically remittance flows. However, states often have direct and indirect reasons for opening up their borders to capital exchange, including remittances. Therefore, even with intense limits and barriers to immigration[24], if given lax restrictions on remitting or international capital movement, migrant workers will remit legally. Once again the results support this conclusion. Relatively fixed exchange rates provide confidence in remitters' international exchange of money, and legislative institutions geared toward the free movement of capital and remittances present remitters with the specific capacity and capability to remit. On the other hand, if there exist relatively minimal barriers to immigration but high restrictions on capital mobility, migrant labor will tend to remit discretely and secretively to avoid the restrictive capital barriers. In this case, even though remitting is occurring, the inability to identify it implies that it is virtually non-existent.

Table 3 and the subsequent figures further provide an understanding of the relationship and resulting effects of the relationship between labor and capital barriers/promotions, especially when national governments have designed the institutions with oppositely intended desires with regard to remittance outflows. It presents the results of an interaction between modified labor and capital institutional variables. The direction and significance for most of the domestic conditions and regional variables are similar to those in Table 2. With regard to the institutional

[24] In this scenario, I assume that even if overwhelming barriers to labor mobility prevent any migration, it is still possible for illegal aliens to immigrate. There is also the possibility that immigrants may reside in the host state if they migrated prior to the extreme labor limitations.

barriers, the results in Table 3 indicate that labor and capital barriers have significantly positive impacts on the effect of outflow of remittances.

Table 3
The Interactive Effect of Institutional Barriers on Remittance Outflows (1990-2004)

	(1)
History	
Remittance Outflow[a]	-0.065
	(0.151)
Institutional Barriers	
Labor	14.096**
	(7.040)
Capital	15.917**
	(7.778)
Labor*Capital	-7.627***
	(3.156)
Domestic Conditions	
Immigration[d]	5.794*
	(3.175)
Population[d]	-21.407
	(91.231)
Internal Conflict[b;d]	-5.123
	(7.832)
Corruption[b;d]	1.456
	(1.193)
Unemployment[b;d]	-2.131
	(4.803)
GDP Growth[b;d]	0.050**
	(0.022)
Income[b;d]	0.002**
	(0.001)
Trade Openness[b;d]	0.356
	(0.811)
Inflation[b;d]	0.003
	(0.011)
Polity[b;d]	-2.019
	(12.980)
Regime Stability[b]	0.262
	(0.307)

Table 3
Continued

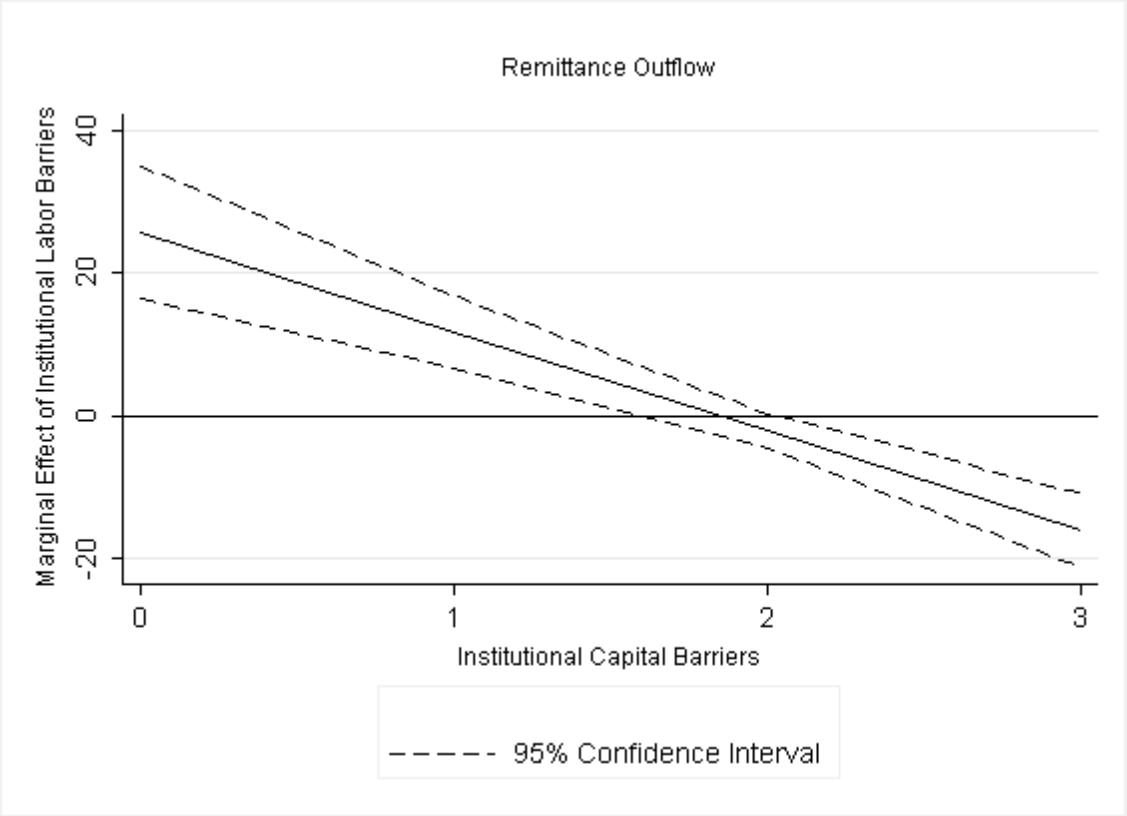
	(1)
Regional Environment	
Internal Conflict[c;d]	17.395
	(21.343)
Corruption[b;c;d]	0.127
	(1.198)
Unemployment[b;c;d]	-7.960**
	(3.886)
GDP Growth[b;c;d]	0.560***
	(0.212)
Income[b;c;d]	-0.631***
	(0.191)
Trade Openness[b;c;d]	2.652**
	(1.154)
Inflation[b;c;d]	-0.001**
	(0.005)
Polity[b;c;d]	-5.674**
	(2.681)
Regime Stability[b;c]	1.995
	(1.405)
Constant	
Constant	-167.314
	(107.359)
Observations	1172
Number of code	104
R^2	0.462
Prob > chi^2	0.000

Standard errors in parentheses
*p < .1, **p < .05, ***p < .01 (two-tail test)
[a] signifies lag of two years
[b] signifies lag of one year
[c] signifies the variable is regionally averaged and then differenced from the domestic value

Assessing the Labor and/or Capital variables leads to contradictive conclusions. Higher levels of labor/capital barriers should theoretically reduce the outflow of remittances, not increase them. Although instances of high levels of labor (or capital) barriers and simultaneously nonexistent capital (or labor) barriers (measured as zero) exist, any conclusions drawn are potentially misleading. From Table 3 it is difficult to determine the impact of labor and capital barriers as each fluctuates. Given this limited

understanding of the relationship between the institutional barriers, in Figure 3 I present the marginal effect of labor barrier changes across the range of capital barriers. The marginal effects are compatible with the expectations of hypothesis 7.

Figure 3
Marginal Effect of Institutional Labor Barriers on Remittance Outflows



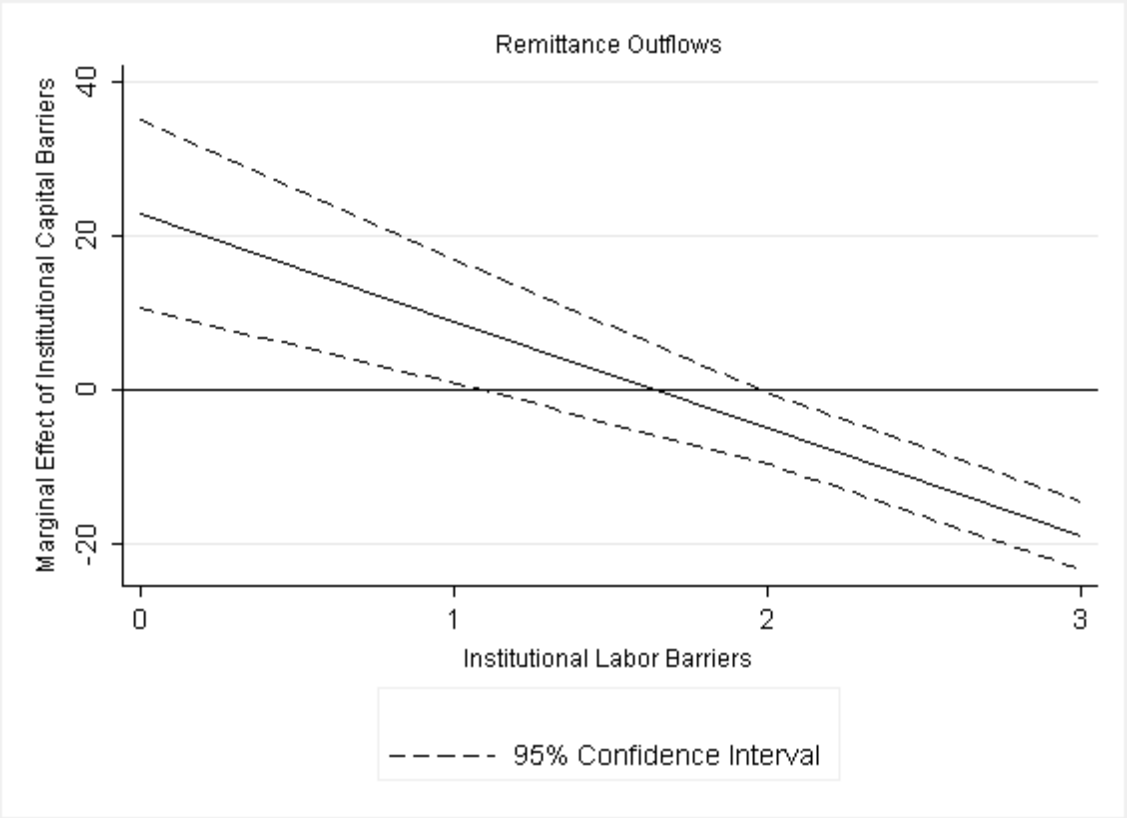
Institutional labor barriers have a significant effect on remittance outflows when capital barriers are roughly less than 1.5 and greater than 2. When there are relatively low levels of capital barriers (<1.5) then labor barriers actually have a positive impact on remittance outflows. This is likely because no matter the number of migrants within a

host nation, the ease of capital exchange makes it possible to remit considerable amounts of remittances effortlessly. However, when capital barriers are relatively high (>2), then labor barriers have a negative impact on remittance outflows. Higher levels of capital barriers have a reductive impact on the marginal effect of labor barriers, indicating the restive nature of capital barriers on remittance outflows.

Figure 4 offers further support of the interaction between the institutional barriers. The figure depicts the effect of institutional capital barriers on remittance outflows as being conditioned by institutional labor barriers, and is generally compatible with the expectations of hypothesis 8.

Institutional capital barriers have a significant effect on remittance outflows when capital barriers are roughly less than 1 and greater than 2. When there are relatively low levels of labor barriers (<1) then capital barriers actually have a positive impact on remittance outflows. Regardless of the level of capital barriers, low amounts of restrictions on international labor mobility (low labor barriers) means a vast amount of migrants may enter a host country relatively unimpeded. Even with restrictive international capital exchange policies, the presumably large amount of immigrants residing in these host nations will still be able to cumulatively remit vast amounts of remittances. Alternatively, when labor barriers are relatively high (>2), then capital barriers have a negative impact on remittance outflows. Higher levels of labor barriers have a reductive impact on the marginal effect of capital barriers, signifying the restive nature of labor barriers on remittance outflows.

Figure 4
Marginal Effect of Institutional Capital Barriers on Remittance Outflows



8. CONCLUSION

Extant literature on remittances is generally limited and convoluted. Previous studies have tended to focus on single cases or regions, thereby neglecting broad and encompassing theories and hypotheses. The studies also tend to focus on the effects of economic determinants on remittances or the effects of remittances themselves. These studies have garnered varied findings and do not come to a consensus on primary influences of remittances.

Although this paper has likely not settled the debate over influential factors of remittances, it has attempted to further the discussion. I have endeavored to understand how states make explicit policies which are intended to reduce the restrictions on capital and labor mobility. And, consequently these reductions affect the ability of labor to migrate into a host state and migrant workers to remit from the same host state. In addition, I analyzed proposed contextual factors expected to influence remittance outflows. However, I also operationalized and measured these variables from both the perspective of the host state and from the standpoint of differences between levels of host and regional home states. This was an attempt to alleviate some of the methodological and measurement issues inherent with the aggregate and non-dyadic remittance data, as well as simultaneously analyzing the supply (push) and demand (pull) mechanisms associated with remittance outflows.

Ultimately, the results indicate that host states do have significant and meaningful abilities to manipulate remittance outflows via institutional policies. Labor

policies and legislation directed specifically at labor can improve remittance outflows. Similarly, capital institutions designed to alleviate restrictions on international capital exchange promote the outflow of remittances. Further, interactions between capital and labor barriers create surprising results. Operational barriers geared solely toward reducing either capital or labor mobility have minimal, if not opposite, effects on remittance outflows. However, a combination of labor and capital barriers functions to effectively limit and reduce the outflow of remittances.

In addition, I discovered that the influences of contextual factors often varied between the effects associate with domestic conditions and the effects as they related to regional differences. The dynamics that attract an individual toward a host state or encourage them to remit home often vary from the dynamics that push them from their home state or provide them with the ability to remit from the host state.

As seen, developing the theories of determinants of remittances is a prolific and logical undertaking. This effort undoubtedly will extend and improve the understudied and under-appreciated influences and causes of remittances, which has largely been ignored in political science. Additionally, it is safe to assume that remittance flows have a significant impact on other, more studied capital such as FDI and PI. Analyzing the causes and constraints on remittance can presumably help researchers better delineate the interrelationship between all three capitals. Lastly, understanding the causes of remittances can aid us in our comprehension of the motivations of remitters and how nations can make strides to control or further these capital flows.

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APPENDIX

Capital: This is an ordinal measure for the extent of institutional capital mobility barriers. It is a scale from 0 to 3, whereby 0 indicates minimal barriers and 3 depicts high amounts of institutional restrictions. The variable is derived from a modification of the three ordinal labor institution variables (Ex. Rate, Remittance, and FM Capital). Remittance is re-scaled as a dichotomous measure in which a 0 indicates the presence of at least one norm or instrument intended to deregulate or limit restrictive capital institutions, and a 1 represents the absence of any such institution. FM Capital is re-scaled as a dichotomous variable in which 0 indicates the presence of at least one BIT, and 1 depicts the absence of any BIT membership. Lastly, Ex. Rate is re-scaled as a dichotomous variable whereby a 1 indicates an exchange rate type of 7-13, while a 0 represents an exchange rate type of 1-6. The three measures are then added together to form the ordinal scale (0-3) for the Capital variable.

Corruption: This factor relies on Transparency Internationals Corruption Perceptions Index (CPI), which measures the level of corruption in 152 countries, to determine the freedom from corruption scores of countries that are also listed in the Index of Economic Freedom. The CPI is based on a 10-point scale in which a score of 10 indicates very little corruption and a score of 0 indicates a very corrupt government. In scoring freedom from corruption, the authors convert each of these raw CPI data to a 0-100 scale by multiplying the CPI scores by 10.

The data are gathered from the Heritage Foundation (http://www.heritage.org/index/) via the Quality of Government database.

Economic Growth: This is the estimate of the growth (difference between years) in GDP. The data was initially collected from the Penn World Tables (http://pwt.econ.upenn.edu/). However, in order to fill in gaps in the Penn World Tables, Gleditsch has imputed missing data by using an alternative source of data (the CIA World Fact Book), and through extrapolation beyond available time-series (http://privatewww.essex.ac.uk/ksg/exptradegdp.html).

Ex. Rate Regime: Based on the operationalization derived from Bubula and Otker-Robe (2002), this is an ordinal scale of de facto exchange rate regimes. They are operationalized as: 1=another currency as legal tender; 2=currency union; 3=currency board; 4=conventional fixed peg to single currency; 5=conventional fixed peg to basket; 6=pegged within a horizontal band; 7=forward looking crawling peg; 8=forward-looking crawling band; 9=backward-looking crawling peg; 10=backward-looking crawling band; 11=tightly managed floating; 12=other managed floating; and 13=independently floating.

FM Capital: This is a measure for the relative free movement of capital. It is measured as the number of Bilateral Investment Treaties (BITs) in which a host state is a member. Only BITs which are associated with nations in geographical vicinity are counted, as well as those which have explicit amendments allowing for free movement of capital across borders. Data are gathered from United Nations Conference on Trade and Development (http://www.unctad.org).

Freedom of Movement: This is a measure of the number of institutional policies designed to alleviate barriers to the free movement of individuals across borders. It is operationalized as the total number of existing norms and instruments deregulating migration at the national level. Data are gathered from the International Organization for Migration: Law Database (http://www.imldb.iom.int/section.do).

Immigration: This is a measure for the inflow of migrants per year. The data are logged to deflate the numbers and improve statistical interpretation. The data is collected from the International Labor Organization. (http://laborsta.ilo.org/).

Income: This is the estimate of real GDP per Capita in constant US dollars at base year 2000. The data was initially collected from the Penn World Tables (http://pwt.econ.upenn.edu/). However, in order to fill in gaps in the Penn World Tables, Gleditsch has imputed missing data by using an alternative source of data (the CIA World Fact Book), and through extrapolation beyond available time-series (http://privatewww.essex.ac.uk/ksg/exptradegdp.html).

Inflation: Inflation as measured by the annual growth rate of the GDP implicit deflator and shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency. Data are derived from the World Development Indicators (2006) database and is squared in order to more fully capture the volatility of inflation.

Internal Conflict: These conflicts occur between the government of a state and internal opposition groups. The measure is operationalized as: (0) No internal conflict, (1)

Internal minor armed conflict, (2) Internal intermediate armed conflict, and (3) Internal war. Armed conflicts are classified as: Minor armed conflict - At least 25 battle-related deaths per year for every year in the period; Intermediate armed conflict - More than 25 battle-related deaths per year and a total conflict history of more than 1000 battle-related deaths, but fewer than 1000 per year; War - At least 1000 battle-related deaths per year. The data is garnered from the UCDP/PRIO Conflict Database is a free resource of information on armed conflicts of the world (http://www.prio.no/cwp/armedconflict).

Labor: This is an ordinal measure for the extent of institutional labor mobility barriers. It is a scale from 0 to 3, whereby 0 indicates minimal barriers and 3 depicts high amounts of institutional restrictions. The variable is derived from a modification of the three ordinal labor institution variables (Freedom of Movement, Migrant Workers, and PT Labor Migration). Each of the three ordinal labor institution variables is re-scaled as a dichotomous measure in which a 0 indicates the presence of at least one norm or instrument intended to deregulate or limit restrictive labor institutions, and a 1 represents the absence of any such policy. The three measures are then added together to form the ordinal scale (0-3) for the Labor variable.

Migrant Worker: This measures the number of institutional devices related to the types of employments for migrants. It is operationalized as the total number of existing norms and instruments which decreases regulations against migrant occupations

at the national level. Data are gathered from the International Organization for Migration: Law Database (http://www.imldb.iom.int/section.do).

Polity: This is an ordinal measure of the level of polity in a given country. The POLITY score is computed by subtracting the autocracy score from the democracy score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic). The data are available from the Polity IV Project (http://www.systemicpeace.org/polity/polity4.htm).

Population: This is the estimate of the total population of a country. The data are logged to deflate the numbers and improve statistical interpretation. The data was initially collected from the Penn World Tables (http://pwt.econ.upenn.edu/). However, in order to fill in gaps in the Penn World Tables mark 5.6 and 6.2 data, Gleditsch has imputed missing data by using an alternative source of data (the CIA World Fact Book), and through extrapolation beyond available time-series (http://privatewww.essex.ac.uk/ksg/exptradegdp.html).

PT Labor Migration: This is a measure of the number of institutional rules guiding employment (permanent and temporary) of foreign labor, and is operationalized as the total number of existing norms, instruments, and policies deregulating cross-border worker employment at the national level. Data are gathered and quantified from the International Organization for Migration: Law Database (http://www.imldb.iom.int/section.do).

Regime Stability: Stability is operationalized as the number of years since the most recent regime change (defined by a three point change in the POLITY score over

a period of three years or less) or the end of transition period defined by the lack of stable political institutions (denoted by a standardized authority score). In calculating the stability value, the first year during which a new (post-change) polity is established is coded as the baseline year zero (value = 0) and each subsequent year adds one to the value of the stability variable consecutively until a new regime change or transition period occurs. Values are entered for all years beginning with the first regime change since 1800 or the date of independence if that event occurred after 1800. The data are available from the Polity IV Project (http://www.systemicpeace.org/polity/polity4.htm).

Remittance: This is a measure of the number of institutional policies related to the exchange of capital across borders in the form of remittances. It is operationalized as the total number of existing norms and instruments deregulating or diminishing the restrictions on remittance outflows at the national level. Data are gathered from the International Organization for Migration: Law Database (http://www.imldb.iom.int/section.do).

Remittance Outflow: Workers' remittances and compensation of employees comprise current transfers by migrant workers and wages and salaries earned by nonresident workers. Workers remittances are classified as current private transfers from migrant workers who are residents of the host country to recipients in their country of origin. They include only transfers made by workers who have been living in the host country for more than a year, irrespective of their immigration status. Compensation of employees is the income of migrants who

have lived in the host country for less than a year. Migrants' transfers are defined as the net worth of migrants who are expected to remain in the host country for more than one year that is transferred from one country to another at the time of migration. Data are derived from the World Development Indicators database, converted to real dollars (base year 1990), and divided by 1000000 to improve statistical interpretation (http://www.worldbank.org/data/wdi2006/).

Trade Openness: This measure is operationalized as Exports plus Imports divided by real GDP, and is the total trade as a percentage of GDP. The data are collected from the Penn World Tables (http://pwt.econ.upenn.edu/).

Unemployment: This is a measure of the total unemployment as a percent of the total labor force. Unemployment refers to the share of the labor force that is without work but available for and seeking employment. Definitions of labor force and unemployment differ by country. Data are available from the World Development Indicators database (http://www.worldbank.org/data/wdi2006/).

VITA

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